37153

ABATEMENT CONDITIONS

National Gypsum Company
Millington, New Jersey

INTRODUCTION

Certain values reported by the company in its Refuse Act Permit Application indicate that additional treatment and/or in-plant changes will be necessary to enable the plant's discharge to achieve acceptable effluent levels. The following Abatement Conditions specify limits which will apply to the plant's discharge. Abatement Condition 1 specifies limits which apply immediately. These limits reflect values reported in the Refuse Act Permit Application or limits with which the company can readily comply. The limits in Abatement Condition 1 do not necessarily indicate acceptable discharge values, but rather, permissible limits which are applicable on a temporary basis pending compliance with required effluent limitations. Abatement Conditions 2 and 3 provide, respectively, future effluent limitations and an implementation schedule for achieving the required effluent limitations.

ABATEMENT CONDITIONS

1. Immediate Discharge. Except as specified otherwise in 1(c) below, the company shall discharge a final effluent which shall not exceed the average daily and maximum daily values as reported in its Refuse Act Permit Application including any modifications thereto.

(a) OIL & GREASE: The discharge shall not contain concentrations of oil and grease that would produce a sheen in the receiving waters nor shall oil be discharged in any quantities that are harmful as defined pursuant to 40 CFR 110.

(b) FLOATING SOLIDS: The effluent shall not contain any visible foam or floating solids.

(c) Immediately, the company's discharge shall not contain parameter levels which exceed the values listed below:

Discharge Serial Number	Parameter	Net Average Discharge
001	pH	7.0 - 11.0
	COD	no net increase
	Total suspended solids	1 lb/day

2. Effluent Limitations. After the date specified in Abatement Condition 3, the company shall discharge an effluent whose characteristics do not exceed the values listed below:

Discharge Serial Number	Parameter	Net Average Discharge
001	pH	6.0 - 9.0
	COD	no net increase
	total suspended solids	1 lb/day

3 Abatement Implementation Schedule. Within 2 months, the company shall provide to the Regional Administrator an implementation schedule for an abatement program to achieve the effluent limits established in Abatement Condition 2. The effluent limits shall be achieved and the implementation schedule shall terminate within 6 months. Upon approval of the Regional Administrator, the commitments and interim dates contained in this schedule shall become a condition of this document. The company shall report to both the Regional Administrator and the State Agency within 10 days following each date on the implementation schedule detailing its compliance with the schedule date and event.

4. Monitoring and Recording. The company shall monitor and record the quantitative values of each discharge according to the following schedules and other provisions: For each discharge, the flow must be measured at a frequency coinciding with the most frequently sampled parameter. Where net values are listed in abatement conditions (1c) and/or (2) the surface water intake is to be sampled with the same frequency and type of sample as specified below for each required parameter.

(a) Sampling Schedule I - The company shall submit a comprehensive monitoring report within 2 months. The company shall take daily 24-hour composite samples (except for pH and coliforms) of intake water (surface water body only) and of each discharge over a typical production period of at least10consecutive operating days. One or two grab samples per day shall also be taken during maximum anticipated waste loadings (i.e. maximum production periods, batch dumping, washing operations). This sampling program shall be carried out to insure complete, reliable results which will typify the plant's daily discharge.

In lieu of this sampling program the company may submit documentation indicating the results of previous sampling programs for all or part of the required parameters. The data utilized in obtaining the average and maximum values which appear in the permit application can be substituted for this report if the reported values can be shown to be representative of the company's current discharge(s). The following parameters are to be reported on: pH, COD, TSS

Sampling Schedule II - This schedule shall commence upon completion of Schedule I and continue until start-up of the treatment facilities required to comply with the effluent limitations of Abatement Condition 2.

The company shall take 24-hour composite samples on a monthly basis for the following parameters: pH, COD, TSS

Sampling Schedules III and IV - Sampling Schedule III shall commence upon start-up of the treatment facilities required to comply with Abatement Condition (2). Schedule IV shall commence upon notification by the EPA. Commencement of Schedule IV will coincide with the effluent values reaching satisfactory steady state conditions.

Discharge Serial Number	Parameter	Minimum Freq. of Analysis Sched.III	Sched.IV	Sample Type
001	Flow	Twice monthly	monthly	continuous for 24 hr period
	pH	Twice monthly	monthly	Grab
	COD	Twice monthly	monthly	24 hr. Composite
	TSS	Twice monthly	monthly	24 hr. Composite

(b) Modifications to Sampling Schedules - The company may submit an alternate schedule(s) to account for any realignment of discharges, for substitutions of parameters to be sampled, for analytical and sampling methods to be utilized, for elimination of intake sampling, and for realignment of sampling locations so that concentrations to be measured are within reliable sensitivity ranges of the analytical techniques. In no event shall the specified frequency of analysis be reduced. With regard to substituting parameters such as TOC or COD for BOD, the company shall provide test data to support the correlation between the parameters. As for elimination of intake monitoring, the company shall provide sufficient data to establish the average levels of intake parameters and demonstrate that any variations in the intake characteristics would have minimum impact upon the company's discharges(s). In such cases the alternate monitoring schedule shall provide for periodic verification of parameter correlations and intake parameter levels.

(c) Quality Control - Adequate care should be maintained in obtaining, recording, and reporting the required data on effluent quality and quantity, so that the precision and accuracy of the data will be equal to or better than that achieved by the prescribed standard analytical procedures.

The company shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at sufficiently frequent intervals to ensure accuracy of measurements.

Sampling shall be representative of the volume and quality of effluent discharged over the sampling and reporting period.

(d) Recording - The company shall record the results of all required analyses and measurements and shall record, for all samples, the date and time of sampling, the sample method used, the dates analyses were performed, who performed the sampling and analyses, and the results of such analyses.

All records shall be retained for a minimum of 3 years, such a period to be extended during the course of any unresolved litigation or when so requested by the Regional Administrator. The company also shall retain all original strip-chart recordings from any continuous monitoring instrumentation and any calibration and maintenance records for a minimum of 3 years, such period to be extended during the course of any unresolved litigation or when so requested by the Regional Administrator.

The company shall provide the above records and shall demonstrate the adequacy of the flow measuring and sampling methods upon request of the Environmental Protection Agency. The company shall identify the effluent sampling point used for each discharge pipe.

(e) Sampling and Analysis

The analytical and sampling methods used must conform to the following reference methods (latest editions) or equivalents previously approved by EPA:

Standard Methods for the Examination of Water and Wastewaters, 13th Edition, 1971 American Public Health Association, New York, New York 10010.

A.S.T.M. Standards, Part 23, Water; Atmospheric Analysis, 1970, American Society for Testing and Materials, Philadelphia, Pennsylvania 19103.

W.Q.O. Methods for Chemical Analysis of Water and Wastes, April 1971, Environmental Protection Agency, Water Quality Office, Analytical Quality Control Laboratory, 1014 Broadway, Cincinnati, Ohio 54202.

(f) Reporting

The results of the above monitoring requirements shall be reported by the company in the units specified in Abatement Conditions 1(c) and 2. A report or a written statement should be submitted even if no discharge occurred during the reporting period. A report should also be submitted if there have been any modifications in the waste collection, treatment, and disposal facilities, changes in operations procedures, or other significant activities which alter the quality and quantity of the discharges or otherwise concern these Conditions. Permanent elimination of a discharge shall be brought to the attention of the Environmental Protection Agency by written notification.

All reports shall be signed by the principal executive officer or corporate official of at least the level of vice-president, or by his agent if accompanied by a signed delegation of authority. In the case of a partnership or a sole proprietorship, the reports must be signed by a general partner or the proprietor. The company shall include in this report any previously approved non-standard analytical methods used. Copies of the report, properly signed, shall be sent to both the Regional Administrator and the State Agency on the 10th of each month reporting the monitoring data from the previous month.

(g) Other Requirements

The company shall comply with all monitoring, recording, and reporting requirements of the State in which the discharge occurs.

The company shall transmit to the Regional Administrator a duplicate copy of any reports on radioactive liquid releases required to be submitted to the Atomic Energy Commission.

The company shall transmit to the Regional Administrator a duplicate copy of any reports on pesticides required to be submitted to the U. S. Department of Agriculture.

Figure I

Guide for Monitoring Report

Data Sheet

Company: John Doe Manufacturing Company

Address: 123 ABC Street

Reporting Period: May 1 - May 31, 1974

Parameter	Date/Time			Date/Time			Averages	Sample Method
	5/14/74			5/30/74				
Flow								
-disch. 001	0.50 MGD			0.52 MGD			0.51 MGD	Continuous
-disch. 002	1.20 MGD			1.30 MGD			1.25 MGD	Continuous
Total (Flow)	1.70 MGD			1.82 MGD			1.76 MGD	
	Intake	Disch.	Net	Intake	Disch.	Net		
BOD_5								
-disch. 001	3 mg/l	45 mg/l	42 mg/l 175 lb.	5 mg/l	55 mg/l	50 mg/l 216 lb.	46 mg/l 195 lb.	24-hr. Composite
-disch. 002	3 mg/l	24 mg/l	21 mg/l 210 lb.	5 mg/l	32 mg/l	27 mg/l 292 lb.	24 mg/l 251 lb.	24-hr. Composite
Total (BOD_5)			385 lb.			508 lb.	446 lb.	
TSS								
-disch. 001	15 mg/l	50 mg/l	35 mg/l 146 lb.	12 mg/l	35 mg/l	23 mg/l 100 lb.	29 mg/l 123 lb.	24-hr. Composite
-disch. 002	15 mg/l	25 mg/l	10 mg/l 100 lb.	12 mg/l	30 mg/l	18 mg/l 195 lb.	14 mg/l 147 lb.	24-hr. Composite
Total (TSS)			246 lb.			295 lb.	270 lb.	
Fecal Coliform			1:00 PM.			2:30 P.M.		
-disch. 001 MPN/100 ml	100	4000	3900	150	3000	2850		Grab
-disch. 002	100	20,000	19,900	150	10,000	9,850		Grab

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5. Sludge Disposal. Collected screenings, sludges, and other solids shall be disposed of in such a manner as to prevent entry of such materials into navigable waters or their tributaries. The company shall report on all effluent screenings, sludges and other solids associated with the discharge herein described. The following data shall be reported together with the monitoring data required in Abatement Condition 4:

a. Sources of solids to be disposed;
b. Approximate volumes and weights of the material disposed;
c. Method by which solids were removed and transported;
d. The final disposal locations of the materials.

6. Air Emissions. Any air emissions containing waste gases and/or particulate matter from existing or future waste treatment facilities associated with the discharge herein described shall not exceed the permissible levels specified in Federal and State Air Quality Standards.

7. Storm Water. Any accumulated storm waters from the plant grounds which have come into contact with raw materials, chemicals, oils, contaminants, impurities, or other materials normally not present in storm water runoff shall not be discharged into navigable waters or their tributaries without prior treatment and required authorization.

8. Discharge Containing Parameter Not Previously Reported. The company shall not discharge any wastewater containing a substance or characterized by a parameter which was indicated as absent in its Refuse Act Permit Application. In the event of such a discharge, the company shall notify the Regional Administrator and the State Agency prior to the discharge.

9. Non-Compliance with Abatement Conditions. In the event the company is unable to comply with any of these Conditions, due, among other reasons, to:

(1) Breakdown of waste treatment equipment, (biological and physical-chemical systems including, but not limited to, all pipes, transfer pumps, compressors, collection ponds or tanks for the segregation of treated or untreated wastes, ion exchange columns, or carbon absorption units);

(2) accidents caused by human error or negligence; or

(3) other causes, such as acts of nature,

the company shall notify the Regional Administrator and the State Agency immediately by telephone and in writing. The written notification shall include pertinent information explaining the reasons for the non-compliance and shall indicate what steps are being taken to correct the problem and to prevent it from recurring.

10. Alternate Power Supply. The company shall, within 6 months, provide an alternate source of power to operate all waste treatment facilities or indicate, in writing to the Regional Administrator, that production shall be controlled or the discharge shall be handled in such a manner that, in the event the primary source of power to the waste treatment facilities fails, any discharge into the receiving waters will comply with the limits set herein. This alternate power supply, whether from a generating unit located at the plant site or purchased from an independent producer of power, must be separate from the existing power source used to operate the waste treatment facilities. If a separate facility located at the plant site is to be used, the company shall certify in writing to the Regional Administrator and to the State Agency when the facility is completed and prepared to generate power.

11. Bypass Provisions. The company shall comply with the following conditions with regard to discharge bypass of waste treatment facilities:

(a) Elimination of Bypass - An implementation schedule for eliminating any bypass of the waste treatment facilities which would allow the entry of untreated or partially treated wastes to receiving waters shall be submitted to the Regional Administrator within 2 months. Until such bypass is eliminated, the conditions specified in (b) below must be met.

(b) Bypass Justified - The company shall, within 2 months, install flow measuring instruments equipped with continuous recorders on all waste treatment facilities bypass lines and shall periodically test and calibrate such instruments and recorders to insure their good working order. When installation of these instruments is completed, the company shall so certify to the Regional Administrator and the State Agency and shall begin transmitting, at the frequency outlined in Abatement Condition 4, copies of all instrument test certifications as well as summaries of quantities discharged, reasons for discharge, and estimated contents of the discharge from these bypass lines.

Definitions

Regional Administrator: Regional Administrator
Region II
Environmental Protection Agency
26 Federal Plaza
New York, New York 10007
ATTN: Enforcement Division

State Certifying Agency: Director
Division of Water Resources
New Jersey Department of Environmental Protection
Labor and Industry Building
P. O. Box 1390
Trenton, New Jersey 08625

Grab Sample: An individual sample collected in less than 15 minutes.

Composite Sample: A combination of individual samples obtained over a specific time period. Either the volume of each individual sample is proportional to discharge flow rates or the sampling interval (for constant volume samples) is proportional to the flow rates over the time period used to produce the composite.

Implementation Schedule: An outline of intended design, construction and operation including a schedule setting forth the dates by which all sources of water pollution must be in compliance with the effluent limitations described in Abatement Condition 2. The schedule shall include the following interim and final dates:

(a) Submittal of engineering report;

(b) Submittal of final plans and specifications;

(c) Commencement of construction;

(d) Completion of construction;

(e) Operational level attained to achieve limits specified.

Additional Definitions

Daily - each normal operating day.

Weekly - every seventh day (the same day each week) and a normal operating day.

Monthly - one day each month (the same day each month) and a normal operating day. (i.e. the 2nd Tuesday of each month).

Average - the arithmetic mean of samples collected over a period of 20 consecutive operating days.

Maximum - the greatest value to be discharged during any normal operating day.

Net - the difference between the poundage contained in the discharge and the poundage contained in the intake over the same period of time. (Net applies only when the intake source is other than a municipal or private water supply or ground water.)

Gross - the poundage contained in the discharge. (Gross applies when the intake source is a municipal or private water supply or ground water.)

Instantaneous - at any moment in time (such as a value obtained from a grab sample)

Engineering Report - an engineering report shall contain the following information:

1. Results of wastewater flow rate measurements and wastewater constituent analyses;

2. Results of pilot plant study for selecting the most feasible and economical treatment process;

3. Consideration of operational requirements with regard to meeting the effluent quality standard;

4. Process flow diagram with material balance;

5. Process configuration, interconnecting piping and provisions for operation flexibility;

6. Process control and chemical feeding system;

7. Area for future plant expansion;

8. All mechanical and electrical equipment design requirements as to the type, size, and operating characteristics.

Additional Definitions (Continued)

Final Plans and Specifications for Treatment Facilities - final plans and specifications shall be presented as detailed engineering plans and specifications for construction purposes, and shall include the following:

1. The location of the existing plant boundaries, including the area for the proposed construction or modification of wastewater treatment facilities;

2. Size, location and general layout of the wastewater treatment facilities;

3. Schematic flow diagram showing the flow through the various treatment process units;

4. M & I (Mechanical and Instrumentation) flow diagram showing the control system and mechanical equipment;

5. Hydraulic profiles showing the elevation of wastewater flow through each treatment process unit, including high, mean and low water levels in each unit and receiving stream;

6. Test borings and ground water elevation;

7. Detail plans, including location, dimensions and elevations of all proposed and existing wastewater treatment process units;

8. Specifications for all construction methods and materials which are not shown on the construction drawings;

9. The quality of materials, workmanship, construction materials and fabrication of the facilities;

10. The type, size, strength, operating characteristics and rating of all equipment;

11. Quality and quantity of all chemicals to be used;

12. Operating tests for the completed works and component units;

13. For facilities designed with a flow of 10 million gallons per day or greater, a Critical Path Method (C.P.M.) construction schedule.